

Before the
Federal Communications Commission
Washington, D.C. 20554

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|--|---|----------------------------|
| In re Applications and Amendments of |) | MM DOCKET NO. 86-440 |
| |) | |
| Charlottesville Broadcasting Corporation |) | File No. BMPCT-20031219AAK |
| |) | |
| For Modification of Construction Permit |) | File No. BMPCT-20030407AAM |
| For A New TV Station on Channel 19 |) | |
| At Charlottesville, Virginia |) | File No. BPCT-19860410KP |

Application for Review

June 25, 2004

Ms. Marlene H. Dortch
Secretary, Federal Communications Commission
445 12th St. S.W.
Washington DC 20554

Re: MM Docket 86-440, and application and amendment BMPCT-20031219AAK

Dear Ms. Dortch:

The following is being filed with the Federal Communications Commission (the Commission) as an "Application for Review". I submit this application in regards to the "Application for Modification of Construction Permit"(New Application), that was filed

by the Charlottesville Broadcasting Corp.(CBC), accepted for filing on January 6, 2004, assigned file number BMPCT-20031219AAK, and granted on May 28, 2004.

In this application, CBC provides its RF exposure calculations, and states its belief that it is exempt from having to prepare an Environmental Assessment Statement. However true this statement may have been when the application was submitted, it is necessary for the applicant to update, as necessary, its application information as conditions change.¹

On May 27, 2004, the application for modification of construction permit, BPCDT-20040510AAM, for WVIR-DT to relocate its antenna, was granted by the Commission. Virginia Broadcasting Corporation, the licensee of WVIR-DT, had previously made application to the Albemarle County Planning Commission, and had already obtained a special use permit to build this new, self-supporting tower. Since the application of CBC had not yet been granted as of May 27, 2004, it was necessary for CBC to update its engineering information regarding any RF exposure hazard that may be created by the WCAV facility with respect to the new WVIR-DT tower, prior to grant of the WCAV modification application.

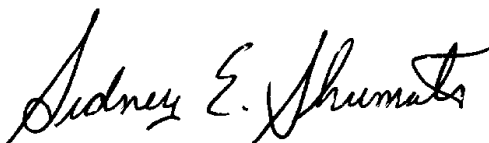
The tower specified in the WVIR-DT construction permit will be located approximately 140 feet from the WCAV tower, and will be a 76.3-meter tall tower support structure with a top mounted UHF transmitting antenna. The CBC antenna, top mounted on a 44.5 meter tall guyed tower, specifies in the application that it will have a center of radiation above ground level (RCAGL) of 50 meters, a one-degree beam tilt, and the directional

¹ FCC Rules and Regulations, 47CFR 1.65

horizontal pattern of the CBC antenna will have a relative field value of 0.72 toward the WVIR-DT tower. As shown in the full calculation in the attached Engineering Statement, the CBC antenna will provide an RF level, centered just below the 50 meters above ground level on the WVIR-DT tower, of up to 2.86 times (286% of) the allowable occupational/controlled exposure limit at Ch. 19 (500-506 MHz), creating a hazard for tower workers on the WVIR-DT tower. This will have a significant environmental effect², and will therefore require the preparation of an Environmental Assessment.

Based upon the information presented in the accompanying Engineering Statement, I hereby request that the Commission inform CBC and Gray that the WCAV application will now have a significant impact upon the quality of the human environment, and will therefore require the preparation of an Environmental Assessment. I also request that the too-hastily-approved grant of this modification application be recalled until as such time as the applicant has prepared and submitted the now-required Environmental Assessment and the Commission has had time to review and take appropriate action, as per 1.1309 and 1.1308(c).

Sincerely yours,

A handwritten signature in cursive script, reading "Sidney E. Shumate". The signature is written in dark ink and is positioned above a horizontal line.

Sidney E. Shumate

² as per 47CFR 1.1306 and 1.1307

ENGINEERING STATEMENT

Of

Sidney E. Shumate

Regarding the

Potential RF Exposure Hazard

From the proposed modified WCAV Ch. 19 Television transmitter facility

BPCT-19860410KP as per modification BMPCT-20031219AAK

To the tower specified in the modified construction permit for WVIR-DT.

BPCDT-20040510AAM, as granted May 27, 2004.

Background:

The formula used in the FCC's handbook on the RF exposure rules, FCC OET Bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, Supplement A for Radio and Television Stations, Section 3, Television Broadcast Stations, page 31 formula 2, gives the formula to be used for calculating the amount of RF power that is reaching a specified point from an analog television station transmitting antenna. This formula is:

FOR ANALOG TV STATIONS:

$$S = \frac{33.4 (F^2) [0.4 ERP_V + ERP_A]}{R^2}$$

Where:

S = power density in microwatts/sq. cm. ($\mu\text{W}/\text{cm}^2$)

F = relative field factor in the downward direction of interest (-60° to -90° elevation)

ERP_V = total peak visual ERP in watts

ERP_A = total aural ERP in watts

R = distance from ground (or from 2 meters above ground) to the radiation center of the antenna (measured in meters)

Occupational/Controlled Exposure from the WCAV tower:

The coordinates of the new WVIR-DT tower place this tower 43 meters away from the proposed new WCAV tower. The new WVIR-DT tower is located southwest of the proposed new WCAV tower, on a bearing of 218 degrees true.

The polar pattern of the proposed WCAV transmitting antenna shows that at 218 degrees true, the relative field factor, F, is 0.73.

The proposed WCAV facility will have a licensed maximum effective radiated power ("ERP") of 1,000,000 watts.

The specified beam tilt of the WCAV antenna is 1.0 degree below horizontal. At a distance of 140 feet, and assuming that the ground level at the WCAV tower is approximately the same as at the WVIR-DT tower, this places the center of the vertical beam pattern at a point approximately 48 meters above ground level on the WVIR-DT tower. We will assume a 10% aural power ratio.

Therefore, the S, or peak power density of the main beam illumination of WCAV onto the WVIR-DT tower structure, centered 48 meters AGL, will be:

$$S = \frac{33.4 (.73^2) [0.4 \times 1,000,000 + 100,000]}{43^2} = 4,813 \text{ uW/cm}^2$$

From Table 1, in the FCC Rules 1.1310; The allowable exposure to radio frequency energy in the frequency band used by UHF television stations, is determined by two formulas, one for the occupational exposure limit, and one for the general population/uncontrolled exposure limit.

The formula for the occupational exposure limit is:

$$MPL_{OEL} = f/300$$

Where:

MPE_{OEL} = Maximum Permissible Exposure (MPE) Power Density (mW/cm^2) Limit for Occupational/Controlled Exposures

f = frequency of television transmitter in MHz

For television channel 19, the center channel frequency is 503 MHz (500 – 506).

Therefore, the MPE_{OEL} for Channel 19 = $1.68 mW/cm^2$, or $1,680 uW/cm^2$

Therefore, the peak power density of the main beam illumination of WCAV onto the WVIR-DT tower structure, centered 48 meters AGL, will exceed the allowable Occupational/Controlled exposure limit by up to:

$$\frac{4,813}{1,680} = 2.86, \text{ or } 286\% \text{ of the } MPE_{OEL}$$

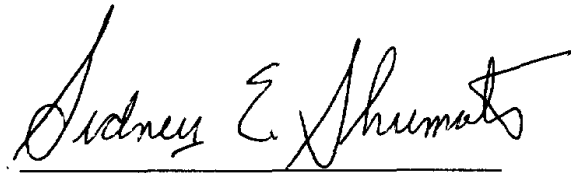
Certification:

I, Sidney E. Shumate, hereby certify that I am a graduate electrical engineer, and received EIT certification in W. Va. in 1975. I am also the holder of General Radiotelephone Operator License PG-5-10588, subsequent to a First Class license obtained in 1973. I am the principal owner and manager of Blue Ridge Video Services, of which Givens & Bell is currently an operating division. I also hold a Commonwealth of Virginia Contractor License, 2705-007603, endorsed for electrical, building and specialty construction. I have been employed as an engineer in the broadcast industry for more than 30 years. I have also been a member of the Institute of Electrical and Electronic Engineers and its Broadcast Technology Society, for more than 30 years.

My qualifications are a matter of record before the Federal Communications Commission. My work has been recognized before the commission with regard to multiple projects, over a period of 25 years.

I prepared the attached engineering report. I represent, primarily, myself and my company in this matter. The facts stated herein are true of my own knowledge, except such facts as are stated to be on information and belief, and as to such facts I believe them to be true.

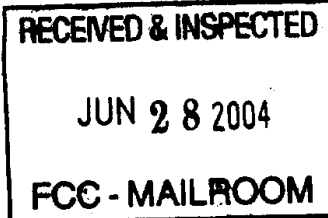
Certified this 24th day of June 2004.

A handwritten signature in black ink, reading "Sidney E. Shumate", written over a horizontal line.

Sidney E. Shumate
Givens & Bell Division of Blue Ridge Video Services

June 25, 2004

Ms. Marlene H. Dortch
Secretary, Federal Communications Commission
445 12th St. S.W.
Washington DC 20554



Re: MM Docket 86-440, and application and amendment BMPCT-20031219AAK

Dear Ms. Dortch:

I, Sid Shumate, owner of a residence located at 432 Moseley Drive, in Charlottesville, Virginia, and owner of the Givens & Bell division of Blue Ridge Video Services, hereby submit the enclosed Application for Review of the May 28, 2004 grant of a transfer of control, file # BAPCT-20040316AJT, of the construction permit, as modified, for WCAV, Charlottesville, VA.

I certify that I am mailing or hand-carrying true copies to the following interested parties:

Mr. Gene A. Bechtel, Esq.
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Washington DC 20005

A handwritten signature in cursive script, reading "Sidney E. Shumate".

Sidney E. Shumate
Principal Owner, Givens & Bell Division of Blue Ridge Video Services
1897 Ridge Road, Haymarket VA 20169

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